Association of Salmon Fishery Boards

2009
ANNUAL REVIEW

STRUTT &PARKER

Chairman's Introduction

HUGH CAMPBELL ADAMSON

It gives me great pleasure to welcome you to the Association of Salmon Fishery Boards' first Annual Review. Its purpose is to inform and, I hope, to entertain - offering articles on various aspects of salmon and sea trout, together with river reports from 2008.

HUGH CAMPBELL ADAMSON

ANDREW WALLACE

BRIAN DAVIDSON

FIONA CAMPBELL

Migratory fish are a wonderfully iconic asset to Scotland. They produce revenue, employment and pleasure to thousands, and in many areas are a key contributor to the rural economy. Yet for many years we took them for granted and relied on Mother Nature to ensure their annual return.

While these halcyon days have gone, due primarily to increased mortality in the oceans, we have now learnt to encourage these phenomenal fish to prosper within our shores.

It is over 150 years since two acts of Parliament created the framework for our unique management system, but the District Boards have stood the test of time. They have evolved from policing organisations to ones focused on conservation and management - usually working in conjunction with local Fisheries Trusts.

We have commissioned the following articles with care and hope they give a balanced view of the current fisheries climate in Scotland. They demonstrate the latest research and practical projects, highlight key threats posed to salmon, give an overview of last season, and also offer an international perspective. If you wish to make any comments or observations we would be very pleased to hear from you.

I would like to express our thanks to Strutt & Parker, without whose support this Review could not exist; to the contributors for their excellent articles; to the Fishmongers' Company, who have been so supportive of the Association over recent years; and finally to those who read this and thereby continue to demonstrate an essential interest in Scottish salmon angling and management.

Hugh Campbell Adamson

The ASFB acknowledges and thanks the following for their support of their work:

ANDERSON STRATHERN SOLICITORS

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Photo and editorial credit: Andrew Graham-Stewart and Rob Fletcher

The ASFB - Who We Are & What We Do

ANDREW WALLACE - *Managing Director, Association of Salmon Fishery Boards and Rivers and Fisheries Trusts of Scotland*

The world of Scottish fisheries management is immensely absorbing for those directly involved. However, to those not living and breathing salmon, it is easy to forget how confusing it can appear. After all, there are innumerable organisations, countless passionately held views and…a good deal of disagreement. We are therefore using the opportunity of this first Annual Review to help explain our structure and our goals.

While regulations regarding salmon fisheries south of the Border are managed by a public body – the Environment Agency – in Scotland each major catchment, or group of catchments, has a District Salmon Fishery Board (DSFB). The Boards are underwritten by the Salmon and Freshwater Fisheries (Consolidation) Act, an accretion of fisheries legislation that stretches back into the mists of time. The most singular quality of this legislation is that owners and managers of salmon and sea trout fishing have wide-ranging responsibilities for the 'protection and improvement of salmon fisheries', which is coupled with the power to raise money from their fellow proprietors in order to achieve this aim.

The Association of Salmon Fishery Boards is the representative body of this network and is chaired by Hugh Campbell Adamson. We have a shared Managing Director (myself) with Rivers and Fisheries Trusts of Scotland (RAFTS), an ASFB Director - Brian Davidson; a shared part-time Administrator with RAFTS - Fiona Campbell; and part time legal and media services. We lobby on behalf of our members at all levels of Government and are responsible for ensuring good lines of communication between our members and the outside world.

The basic structure of the Boards was established in the late-19th century and the ASFB was formed in the 1930's. At that time most DSFBs were largely dominated by net fishing interests – salmon netting being an economically vital business in rural Scotland. However, since the 1970s – as net fisheries have declined and the importance of recreational salmon fisheries has correspondingly increased – the organisation is now largely dominated by angler-centric management issues.

In recent years the Association and its members have had to cope with a rapidly changing political landscape, particularly given that rural matters are now controlled by Holyrood. It has therefore been vital for the Boards to evolve into organisations that can not only effectively manage their local responsibilities – which has been the great strength of Scottish salmon management to date – but that are prepared to engage with the communities and organisations that affect their business. Supporting their management decisions now requires high-quality information – the days are long gone when decisions need only to have been backed up by ringing Victorian swagger and poise!

Fisheries Trusts

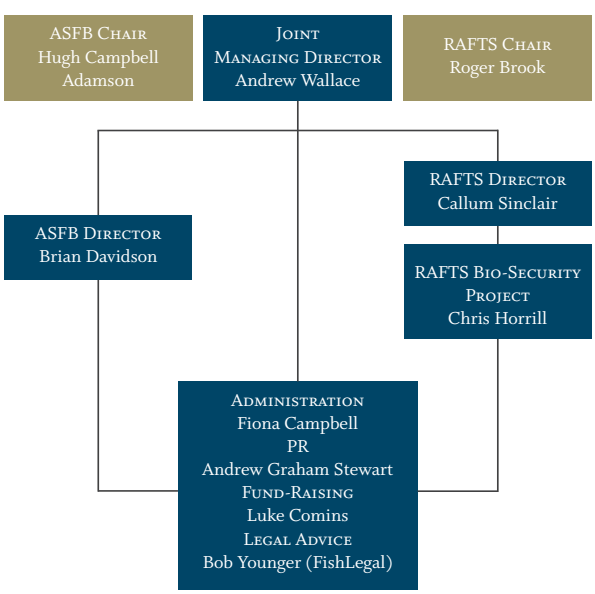
To assist this process of 'evidence-based management' we have been actively developing a network of Fisheries Trusts which work closely with the Boards to provide information on which to base, justify and promote decisions. These charitable organisations are capable of looking at issues, such as the management of other fish species, which fall outside the direct remit of the Boards. They are also involved in areas of active research, monitoring, education and communications. There are now 22 such Trusts in Scotland, covering over 80 per cent of the Boards, and these organisations work in an increasingly integrated way – sharing accommodation, key staff and resources. However, at the same time, they need to ensure clear blue water between their statutory and charitable roles.

While potentially confusing, this formula for managing our catchments is supported by the Government and is starting to work well in most parts of Scotland. To some it may not be an ideal design but it is beginning to demonstrate a way forward for practical and effective resource management.

The Trust network is represented by Rivers and Fisheries Trusts of Scotland (RAFTS), an organisation which does the same job for its members as the ASFB does for the Boards. RAFTS is chaired by Roger Brook and employs a full time Director, Callum Sinclair. As joint Managing Director I am responsible for ensuring that the organisations work well together and we share an office, staff and resources much as many individual Boards and Trusts now do.

A key feature of recent years has been that both our organisations and their members have demonstrated an ability to work in a more open and accountable way. We also endeavour to work with the Government and its agencies in collaborative projects such as fisheries management planning, the Strategic Framework for Scottish Freshwater Fisheries and major EU-funded projects.

Whilst there remains much to be done, we believe considerable progress has been made in recent years. We have an increasingly 'fit for purpose' structure in place for effectively managing one of Scotland's greatest natural icons and the waters it inhabits. We hope the next few pages will help explain our challenges and what we hope to achieve.

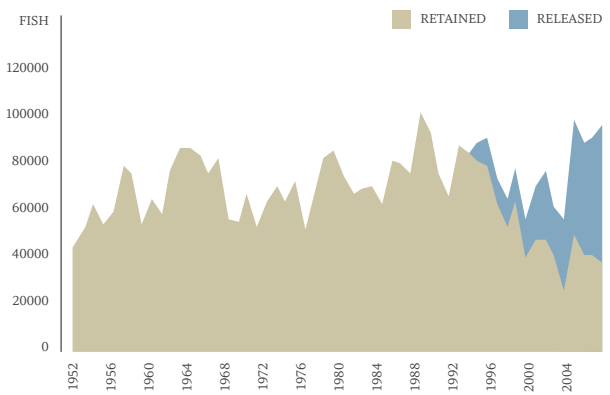


A Summary of Scotland's 2007 and 2008 Seasons

ANDREW WALLACE

Scotland's salmon catch statistics are compiled by the Scottish Government's Fisheries Research Services (FRS) and provide the longest-running series of official salmon catch data in the world. Because the information has to be collected from several thousand fisheries proprietors, the official bulletin is not published until September of the following year, so FRS figures are currently only available for 2007.

However, Fishery Boards are now able to collect and publish their own data much sooner, which is useful for setting management policies for the year ahead. Below we summarise the official figures for 2007, make an assessment of 2008 and dare to make some predictions for 2009.



NATIONAL SALMON ROD CATCH STATISTICS, SCOTLAND 1952-2007

2007 – With over 92,000 fish landed by anglers, this was Scotland's third highest salmon catch on record. After a relatively poor spring and another late and patchy grilse run it would be fair to say that these figures are probably partly a result of exceptionally good angling conditions, rather than very large runs. 61% of the total catch, and over 70% of spring fish, were returned, reflecting the different policies needed to conserve different stocks. Catches of salmon in the north west were encouraging and continued to show some limited signs of recovery, but sea trout numbers remained a source of real concern.

2008 – This season started with a better (but not startling) spring, followed by some excellent late spring/early summer runs in many east coast rivers. The grilse run was again late - although fish appeared to be in better condition - and it picked up as most of Scotland (barring the north west) experienced another wet summer. The autumn run appears to have been good but not remarkable. Most east coast rivers, especially the Spey with its excellent runs of multi-sea winter fish in April/May/June, have fared well. Sea trout catches remain very disappointing, except in the Firth of Clyde, and the Association has urged all members to take account of this depressing trend when setting catch and release policies for 2009.

Although an exceptionally dry summer influenced grilse catches in the far north west, there is little doubt that the bulk of the west coast grilse were simply missing. The River Awe barrage counter, which has shown steady counts over the last decade, was down about 1500 fish (50% of 5 yr avg) last season. The reasons for this are not clear, although the Lochy's catches, which have been improving considerably, are still clearly affected by high sea-lice levels on farms in the second year of the two year production cycle.

2009 – Making predictions on salmon catches is a foolhardy exercise. Heavy snowfall in early 2009 in the north may well ensure good supplies of melt water to optimise river conditions into spring. Given recent patterns we might expect the following trends to continue:

Spring runs – Late spring fish have tended to show some signs of modest recovery in recent years, despite occasional lapses such as occurred in 2007. It is hoped that this slight upward trend will continue.

Grilse – Although overall catches in 2007/8 remained quite good, strong runs of multi-sea-winter fish meant that the proportion of grilse was comparatively low. Weak grilse runs are not that unusual, however, so we should not be unduly alarmed unless these occur in several consecutive years. Grilse condition appeared marginally better in 2008 but they are still well below the average size and condition expected. We would therefore hope to see at least a stabilisation of grilse condition in 2009 and perhaps a stronger run.

Sea trout – The enigma of the sea trout continues. Having been poor in the west for many years now, it is the decline on the east coast that is becoming more obvious. Current trends are not looking good and we have no reason to believe that this situation will improve. A much better understanding of these fish is required. It is worth remembering that sea trout collapses have happened in Wales and the Solway in recent years and their fortune as a species is clearly unpredictable. Tony Andrews of the AST gives some relevant thoughts later in this report.

Image: Crispin Rodwell

The Salmonid Superbug - Gyrodactylus Salaris

BRIAN DAVIDSON

The greatest threat to the future of salmon fishing in Scotland.

Rod catches of salmon in Scotland have held up remarkably well in recent years. Led by the Tweed, which yielded over 16,000 rod-caught salmon in 2007, many of our rivers continue to produce encouraging and sometimes excellent catches. Indeed 2007 saw Scotland's third highest rod catch of salmon and grilse since consistent records began in 1952. There is little doubt that the great decline in marine survival in the last 40 years has been compensated by the huge reduction in our coastal nets – acting as a buffer for rod catches. Consequently demand for salmon angling remains buoyant.

However there is no room for complacency. Numerous issues still threaten the future viability of migratory fish runs – including acidification, water abstraction, hydro schemes and aquaculture. But undoubtedly the biggest threat currently facing our migratory fish is the tiny ecto-parasite, Gyrodactylus salaris (Gs) – a creature which could single-handedly devastate our salmon stocks. If it ever gained a foothold here, it would destroy our unique salmon heritage with chilling efficiency.

Thankfully the United Kingdom and Ireland, unlike the rest of Europe, are still officially Gs-free. But it is vital to act to ensure this status is maintained, and to prevent a national economic and environmental catastrophe.

KNOW YOUR ENEMY

Gs is less than half a millimetre long, and attaches itself to either the scales or fins of fish. Remarkably, it gives birth to live young which are the same size as the mother, and inside this offspring a further generation is already developing – making them similar to a rapidly reproducing series of Russian dolls.

Gs both damages the fish's skin and allows for secondary infection, and several thousand of the creatures can feed on a single salmon parr. Thankfully, the parasite cannot survive full strength sea water, so natural migration of fish is unlikely to spread infection.

Gs originated from the Baltic strains of salmon (which are resistant), reaching rivers in south-west Norway via careless movements of rainbow trout in the 70's. Since then, 41 Norwegian rivers have been infected and their salmon populations effectively exterminated.

Scientific tests have revealed that Scotland's strains of salmon are highly susceptible to Gs and if the parasite entered a Scottish freshwater system it would likely result in up to 90 per cent mortality.

Treatment of infected rivers is a messy, depressing, long-term and highly expensive business. Rotenone – an extract from the root of the derris plant - has been used in some rivers in Norway. This kills all fish in the river, and ultimate recovery relies on restocking programmes carried out from eggs and juveniles collected prior to the poisoning.

Such drastic treatment is only possible in short rivers with favourable conditions. An alternative is to use aluminium sulphate – a chemical which kills Gs but not the salmon – but both treatments are

hugely expensive and offer no guarantee of success, as was recently demonstrated in Norway.

As a result, keeping Gs at the forefront of everyone's minds will remain an ongoing priority for the Association, for prevention is considerably more effective than cure.

With help from the Government, we have commissioned the production and placement of 1300 riverbank signs to ensure anglers, canoeists and other water users are aware both of the risks posed by Gs and of the appropriate action to take. These will be gracing the riverbanks in time for the 2009 season.

The Association has also purchased supplies of disinfectant so that proprietors can provide disinfection facilities for anglers. A detailed contingency plan has also been prepared by the Government and stakeholders in case of the worst case scenario – the announcement of an outbreak.

I make no apology for reminding readers again of the simple message and procedures which will ensure Gs never reaches Scotland.

If you have fished abroad within seven days prior to fishing in Scotland, you must disinfect, using one of the following techniques:

- Dry equipment at a minimum of 20°C for at least 2 days
- Heat at above 60°C for a minimum of one hour
- Deep freeze equipment for at least one day
- Immerse in a solution suitable for killing Gs for a minimum of 10 minutes*

*Virkon, Wescodyne (1% solution), sodium hydroxide (salt water 0.2%)

If you are in any doubt, disinfect. All of our member boards are on hand to provide advice to anglers.

It is vital to ban the bug.

Using the Resource

HUGH CAMPBELL ADAMSON

In 1967 there was such an abundance of salmon and grilse returning to Scottish rivers that three netting stations on the northeast coast took over 50,000 fish between them. In Scotland, over half a million salmon and grilse - a staggering 4,000 tons - were being killed each year.

The glory days did not, however, continue. The number of returning fish has dwindled - due primarily to a collapse in the sea's ability to foster the development of young salmon. Forty years ago, for every 100 smolts which went to sea, 30 to 40 would return as adults, now we are lucky to see ten.

As a result, we have had to learn to look at wild salmon differently. No longer can we exploit them with little concern for the future. No longer can they be regarded as a cheap form of food. We must accept that there comes a point on all rivers when, however good the habitat, excessive exploitation of the stock may leave too few adults to be viable. We must not be greedy, but must cherish, protect and nurture the resource.

Netting along our coasts has declined considerably in the last half century. Economic pressure – caused by fewer available wild fish, combined with fish farms temporarily reducing the price of salmon – has seen most netting stations being bought out by angling interests or simply closed. Yet many still remain and continue to have a significant negative impact both on salmon stocks and on management techniques.

In 2007 around 90,000 salmon were caught by anglers in Scotland, 50,000 of which were returned. At the same time, 20,000 fish were killed in nets. These bare statistics do not tell the full story. Whilst some areas have no nets, others are heavily affected. For instance, in the South Esk area, some 90 per cent of salmon and grilse killed are taken in coastal nets.

By contrast, angling is very inefficient. Perceived wisdom is that a fisherman may catch one in ten of the salmon available. If he puts half back, then only five per cent are taken. It can be strongly argued that if anglers behave responsibly, they do not endanger the stock.

Coastal – as opposed to in-river – netting also creates management problems, as the salmon taken come from a variety of rivers (which is why coastal netting stations are often referred to as interceptory or mixed stock fisheries). We cannot tell from which river the harvest is taken, and it could well be from a river without spare capacity, even from one where anglers must return all fish. This is clearly both poor management and grossly unfair.

The danger to salmon stocks is internationally recognised – ICES (International Council for the Exploration of the Sea) warns of the threat posed by netting. Whilst all other salmon-producing countries have heeded this warning and either banned mixed stock fishing or have committed to doing so, Scotland remains the only country with no Government policy on this vital issue. However, last year's Strategic Framework for Scottish Freshwater Fisheries did include a recommendation to set up a Mixed Stock Fisheries 'Task Force'. This is currently in progress and will report its findings at the end of this year. Salmon angling is worth over £120m annually to Scotland's rural economy. It employs over 2500 people and pumps over £5m a year into management and research. The Boards themselves levy over £3m from rod fisheries but, due to an anachronistic and unfair system, can only raise £60,000 from netting interests. This equates to a 2 per cent contribution for 36 per cent of the fish!

Over the last 40 years we have seen a dramatic change in the use of our Scottish salmon resource. We have seen the balance shift from a source of food to one of sport; we have seen the numbers of adults returning to our shores decline; we have seen the surplus diminish considerably; and we have recognised the need for proper management of the stock and of its environment.

Sadly this shift of emphasis has yet not been fully recognised. We now need to safeguard the future by entering into proper dialogue with netsmen, and we need the Government's help to achieve this. Netsmen and anglers have the same rights regarding the exploitation of salmon, but no-one has the right to jeopardise the future for a short-term gain. We have seen the catastrophic effects of over-fishing around Newfoundland and in the North Sea. We must ensure a similar disaster does not take place off Scotland's shores.

Fixed engines at Montrose

Image: Andrew Graham-Stewart

Using the Law to Protect Scotland's Fisheries

GUY LINLEY-ADAMS, Senior Solicitor at Fish Legal (formerly ACA)

Fish Legal, formerly known as the Anglers' Conservation Association, is once more active in Scotland. This is in no small part due to the work done by Andrew Wallace, and our thanks must go to him and other ASFB staff for making this possible.

Fish Legal now employs an in-house legal team which supports angling clubs and fishery owners across the UK. Traditionally we have taken private legal cases on behalf of clubs and owners to secure damages where rivers and lakes have been affected by pollution, or intervened when fisheries have been placed under similar threats.

Fish Legal is, however, becoming increasingly proactive and is using European law, such as the Habitats Directive, to force improvements in the protection of fisheries.

In Scotland, in the last year or so, we have opened cases relating to: over-abstraction of the River Ericht at Blairgowrie by a rainbow trout farm; ecological damage caused by Scottish Water sewage works on the Rotten Calder at East Kilbride; the construction of flood defence works on a tributary of the Irvine at Galston; slurry pollution on the Irvine at Darvel; damage caused by repeat mass escapes of farmed rainbow trout on lochs Awe, Etive and Lochy; and the escape of farmed salmon smolts on the River Devon.

We have had some successes, such as forcing SEPA to review a licence - which has allowed the Blairgowrie fish-farmer to dry a 2-mile section of the river in low flow periods – five years sooner than had been planned. We have secured damages of £4000 from Scottish Water for the East Kilbride Club as a result of pollution from Scottish Water sewage treatment works.

A very important aspect of this year's work has been to scrutinise the files of Government and regulators. We have used the Freedom of Information Act 2000 and the Environmental Information (Scotland) Regulations 2004 to extract information on polluters from SEPA, reveal Government attitude to fish escapes, and assess the opinions of SNH, the Forestry Commission, FRS and the Scottish Government itself regarding the acidification of various headwaters.

On the Rotten Calder case, Fish Legal has needed to refer SEPA to the Scottish Information Commissioner for refusing to disclose relevant witness statements relating to their investigations of the treatment works. And we have referred the Scottish Government to the Information Commissioner for refusing to publish the results of a 2008 inspection of the 'leaky' rainbow trout farm on the Lochy.

We have also provided more routine legal advice to angling clubs and fishery owners across a range of issues - such as abstraction for hydro schemes, leases of fisheries, duties under the Reservoirs Act, and insurance.

Fish Legal now boasts two Scots-qualified solicitors in Guy Linley-Adams, based at head office in Leominster; and Bob Younger, based in Edinburgh. We have also established a good working relationship with Gillespie Macandrew, an Edinburgh law firm, to provide expert back-up whenever required.

Images: Fish Legal

What Fish Legal can achieve, however, is limited by available funds and we therefore need to recruit every angling club in Scotland and every individual angler, who can help by joining us. We are also encouraging the remaining DSFBs to join and are now providing legal back-up to 15 Boards so they can make more effective use of their statutory powers. We have instructed the best Scottish advocates to look at the Boards' powers for us, particularly in relation to fish farm escapees. This is a very exciting time and we will contact all Boards shortly.

Finally, a word about 'angling unity' in England. The new Angling Trust, just set up in south of the Border, does not operate in Scotland. Angling representation in Scotland is managed through the Scottish Anglers' National Association (SANA) - the governing body of the sport - which has 40,000 members and an extensive club and competition network. Coarse fishing representation is through the Scottish Federation of Coarse Anglers (SFCA), and sea-fishing through the Scottish Federation of Sea-Anglers (SFSA). These organisations will remain the governing bodies of their sports but we hope that increasing assistance can be given to them by Fish Legal.

To contact the legal team at Fish Legal,
e-mail: guy.linleyadams@fishlegal.net
or write to:
Fish Legal, Eastwood House,
6 Rainbow Street, Leominster,
Herefordshire HR6 8DQ

Recovery on the Lochy

JON GIBB - *River Lochy Fishery Manager*

Few rivers in Scotland have seen such a turbulent recent history as the Lochy. Back in the heydays of the 1960s and 1970s, this jewel in the west coast crown was amongst the most desirable fishing locations in the country – eight miles of stunning fly water with a regular annual catch of between one and two thousand tide-fresh salmon and grilse.

But ten years ago, after a decade of plummeting catches, disappearing tenants and a mass infiltration of stunted farmed salmon, the poor old Lochy reached its nadir – the catch return for 1998 had collapsed to an utterly depressing 32 fish.

While most of the angling world had written off the Lochy, the syndicate of 16 owners had other ideas. Even though it seemed they were staring straight into the abyss, they dug deep into their pockets and invested heavily in their much-loved river at a time when paying anglers had gone elsewhere and politicians seemed to have sacrificed such formerly prolific west coast rivers to the great god Aquaculture.

Ten years on, the results of this investment have been described as nothing short of miraculous – catches have rocketed since 2001 and in two of the last four seasons the annual rod catch has been nearly 1500 fish. Within this very short timeframe the waiting list to fish the Lochy is now longer than ever. By creating the right conditions, salmon have come flooding back.

Another, less expected, result has been the revival of the spring run and the regular appearance of huge multi-sea-winter (MSW) salmon. In 2004 a single angler had springers of 42, 29, 27, 21 and 15 lb for his mid-May week, and last season saw five fish of over 30 lb landed in a week – with one lucky angler catching salmon of 34 lb and 33 lb from one pool in the same day!

The Island Pool on the Lochy

Image: Jon Gibb

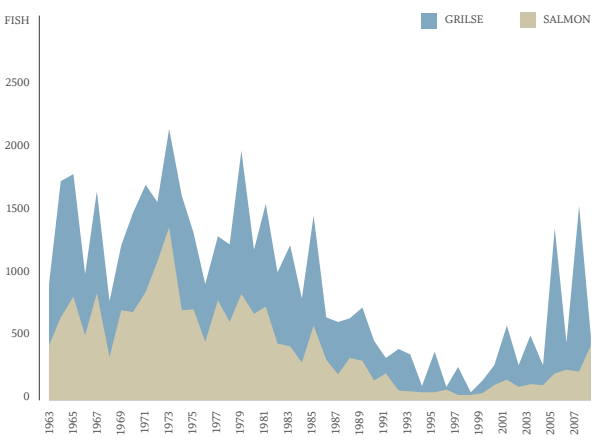
So what has happened to allow such a rapid and prolific recovery? Most famously, the Lochy started a highly intense restocking project in 2002, with the annual introduction of around 500,000 fry and up to 50,000 parr and smolts. To ease the costs a partnership arrangement was set up with Marine Harvest, who now assist with rearing the indigenous smolts on a freshwater farm in the catchment. Although restocking has undoubtedly had a massive impact, the other major boon was the signing of the Linnhe/Lorne Area Management Agreement in 2002, which dramatically improved lice control in the estuary.

Other measures - such as highly vigilant predator and poaching control, and increased access and awareness by local anglers – have been underpinned more generally by a management ethos of best practice. While we realise that fishery science is a vital servant, it is not the master; and that while abundant salmon bring in much needed restoration income, eels and sticklebacks do not!

However, one clear threat remains to the full recovery of the Lochy. As can be seen from the graph, the grilse run can fluctuate by up to a massive 1200 per cent. The only saving grace is that a poor grilse year usually means a good season for big MSW fish.

From the sterling work of the Lochaber Fishery Trust, as part of the Tripartite Working Group (TWG) initiative, we now know these swings relate to sea lice numbers on fish farms. Every other year, when the local farms are in the second year of their two-year production cycle, the available chemicals are incapable of controlling sea lice sufficiently to save the outgoing wild smolts from lethal infestation. The result is a collapsed grilse run. The graph also clearly shows that smolts passing the fish farms in the lice-free first year of farm production will return in numbers not seen since the heady days of the 1960s.

It is now very clear that not until the two fish farms at the mouth of the river are relocated to a more suitable site for fish farming will 'The Queen of Scottish Salmon Rivers', as the late John Ashley-Cooper described her, be truly restored to her throne.



RIVER LOCHY ROD CATCH STATISTICS 1963-2008

The North Esk - The Home of Scottish Salmon Research

DR MARSHALL HALLIDAY - *Director, Esk Rivers & Fishery Trust*

The Esk District has always had one of the most important net fisheries in Scotland and the immense economic value of its salmon has resulted in a number of environmental improvements to the rivers in the area. The first such were the establishment of passes on the falls on the West Water and Burn Loups, implemented in 1947 and 1949 respectively.

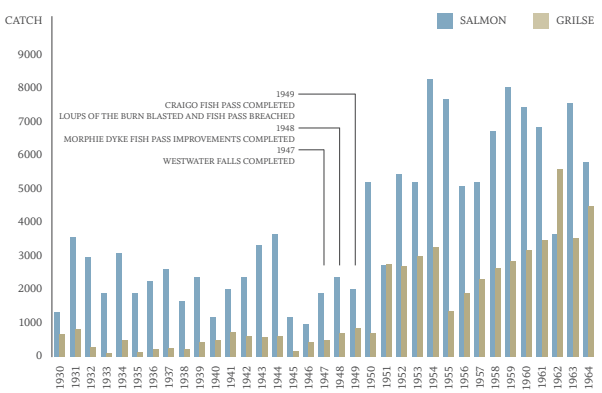
Spawning areas in the upper catchment were also made accessible in the 1950s, and by the 1960s only two major dams - at Craigo and Morphie - remained. Upper river proprietors negotiated long and hard to allow more fish to cross these obstructions and Craigo was breached (mysteriously!) in the mid-1960s, while substantial improvements to the fish pass at Morphie have been implemented more recently. It is thought that it is these improvements which have made the North Esk one of the most productive rivers for its size in the northern hemisphere (see below).

in Montrose Bay and Lunan Bay, intercepted salmon from a number of rivers. Exploitation rates for the net and coble and rod and line fisheries have been estimated by FRS (Table 1).

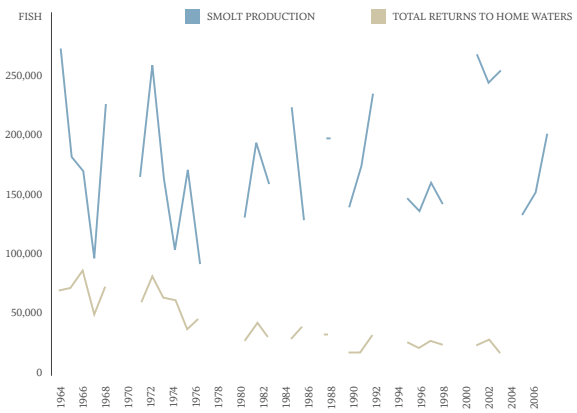
Table 1: North Esk exploitation rates 5-year averages based on the number caught compared with the number available (catches = counts)

Period	Net & Coble		Rod & Line	
	1SW	MSW	1SW	MSW
1981 - 1985	0.244	0.432	0.014	0.122
1986 - 1990	0.338	0.334	0.038	0.236
1991 - 1995	0.190	0.186	0.056	0.262
1996 - 2000	0.210	0.140	0.034	0.208

Further exploitation was caused by the more distant impact of drift net fisheries during two periods in the 1960s and early 1970s. Some exceptionally large catches were also recorded off Greenland in the 1960s and these may have affected Scottish salmon stocks too. However, such levels of exploitation did not appear to harm North Esk stocks and this is probably due to the relatively consistent smolt production in the river (see below) and the high marine survival rates of salmon and grilse in the past.



NORTH ESK NET & COBLE AND ROD & LINE CATCHES 1930-1964

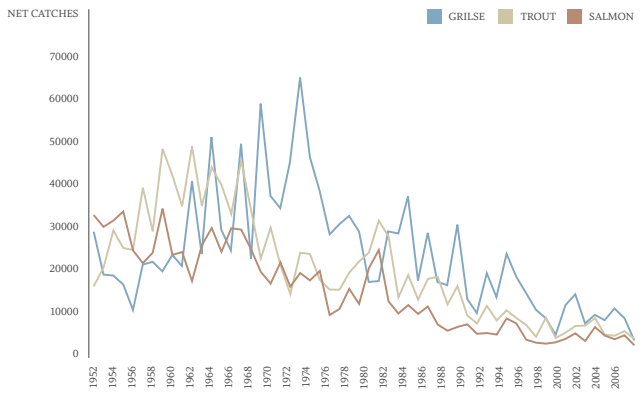


NORTH ESK SMOLT PRODUCTION AND RETURNS TO HOME WATER 1964-2006

The Government's fisheries research agency, FRS, has monitored smolt production in the North Esk since 1964, recorded adult counts there since 1981 and on the West Water since 1991. It is therefore often referred to as 'Scotland's Index River' and is highly influential in formulating Government salmon management policy. FRS's detailed analysis has also allowed a number of performance indicators - including smolt production, marine survival, exploitation rates, numbers of adults entering the river and estimates of spawning escapement - to be compiled and tracked.

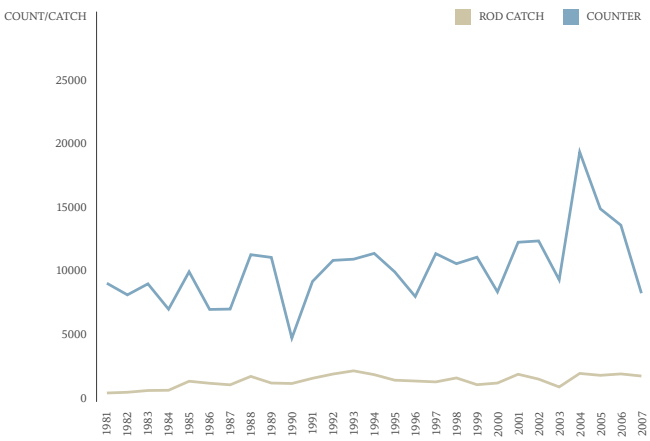
In the 19th and 20th centuries, the stocks of North Esk salmon and sea trout were exploited heavily by net and coble fisheries, based at Craigo, Morphie and Kinnaber; while fixed engine fisheries, focused

Whereas, historically, the limiting factor on fisheries catches was probably freshwater production, mortality at sea - which has dramatically increased since the mid-1970s - is now the major factor in the decline of net fisheries (although it is not possible to discount changes occurring in the physiological competence of smolts).



TOTAL NET CATCHES OF SALMON, SEA TROUT AND GRILSE WITHIN THE ESK DISTRICT 1952-2007

This graph is more a reflection of the reduction in the local net fisheries – caused by economic pressures, buy-outs and increases in the weekly close time for netting – than of a decline in available fish. And from 2008 there will be no further coastal netting in Montrose Bay as the rights have been purchased by Esk Salmon Management Ltd, a subsidiary of the Esk District Salmon Fishery Board. Exploitation by anglers has also declined, with catch-and-release increasing to some 60 per cent since 1994. This policy has largely compensated for the enhanced losses at sea and, as a result, both the fish count and the rod catch have shown a slight increase since 1960 (see below).



NORTH ESK LOGIE COUNTER AND TOTAL ROD CATCH 1981-2007

The most noticeable change concerns the early-running stocks of MSW salmon for which the North Esk was once famed. The almost legendary numbers of early season salmon in the 1960s and 1970s which were held below Morphie Dyke (and were principally taken by the Morphie net and coble fishery) have long gone. A similar picture has been seen in Scotland as a whole, but the Esk was the first Board in the country to use statutory measures to reduce the exploitation of these early-running fish.

However, recent changes in the condition and size of grilse and summer salmon, probably driven by climate change (acting on availability of food supplies), suggest it is not just spring stocks that are fragile. The average weight of summer salmon has declined by roughly 1.1kg in the last ten years, and salmon as small as 1kg were caught in 2008. Nonetheless, after the disappointing runs of 2007 and the first half of 2008, the Logie Counter showed strong runs occurring in the latter half of the year.

It is, however, true that salmon runs have exhibited long cycles over time. Prolific grilse runs occurred on the Esk in the 1880s and 1890s, before declining steadily until the late 1920s. Thereafter numbers showed only a slight improvement until the early 1960s when they began a meteoric ascent (the grilse net catch in 1965 was 16 times the 1925-34 average). Changes in the average weight of salmon have been witnessed during the last 80 years too:

Table 2: Average weights of salmon taken by nets within the Montrose area: 5-year averages from 1930-1960

Period	Average weight (kg)	Period	Average weight (kg)
1931-35	5.9	1946-50	5.21
1936-40	5.49	1951-55	4.94
1941-45	5.53	1956-60	4.63

The fact that many of the changes in both the size and number of fish have been observed historically should not, however, lead to complacency. While they might offer a useful reminder of the salmon's immense genetic potential for change, adaptation and recovery, it must also be stressed that the potential for a catastrophic collapse is much greater now, due to the impact of human activities on both the fresh and saltwater environments.

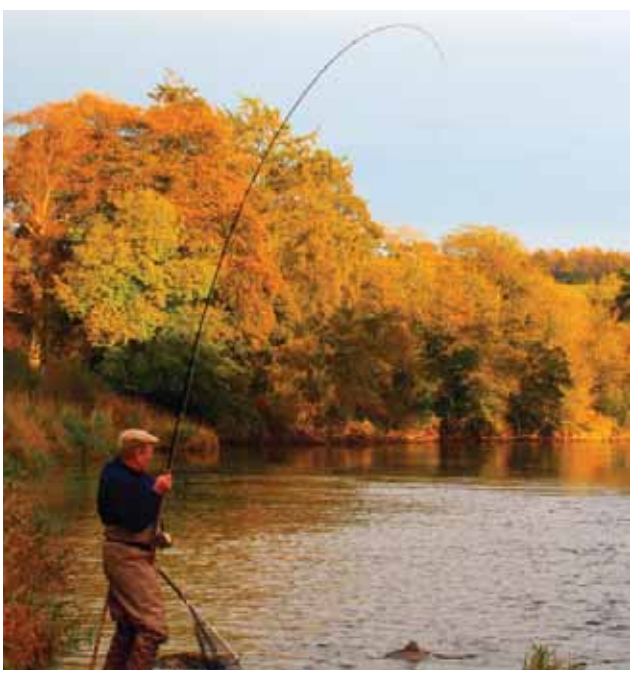


Image: Jamie Hind

The Salmon Clans of Scotland

SIMON McKELVIE - *Conon DSFB*

Image: Dmitry Guskov

It has long been recognised by anglers that salmon differ, both in terms of appearance and behaviour, between various rivers and geographical regions.

Physical differences can be most clearly seen in the size and the shape of the fish particular to a river, while behavioural differences are reflected by the timing of their return to fresh water and their propensity to take different patterns of fly. Closer examination also shows more subtle variations between populations of fish which demonstrate their adaptation to the particular rivers in which they've evolved.

Even as far back as 1913 the Conon proprietors objected to the proposed stocking of the river with eggs from the Tweed on the grounds that 'the two rivers were so unlike in the character of their courses and their waters'. These enlightened landlords recognised that the diversity of both our rivers and the fish that live in them is one of the greatest strengths of Scottish fisheries. After all, the geographical and temporal variations give anglers the opportunity to fish for spring salmon in the North and East, summer grilse in the West, and autumn fish in the Borders. The preservation of this diversity is essential to the future of our fishing.

Recent advances in genetic analysis have shown salmon populations to be structured on a fine scale within rivers in Ireland. Not only are there genetic differences between salmon from neighbouring catchments but also between salmon populations within a single river – factors such as waterfalls and the confluence of tributaries can act as genetic watersheds. And work is now underway to map the distribution of salmon populations in Scotland too. This is to be achieved by a partnership between RAFTS, Fisheries Research Services (FRS) and individual Boards and Trusts.

The project will collect and analyse tissue samples from across the country, making use of the financial, managerial and staff resources of Fisheries Trusts and DSFBs and combining these with the scientific and genetic analysis provided by FRS. This project will build on a European-funded project, SALSEA, which has started to map salmon populations on a pan-Atlantic scale.

The primary benefit offered by a clearer understanding of the way in which salmon populations are structured and interact with their environment is that it should ensure better informed management practices and the development of more effective conservation policies. For example, it should allow an assessment of which populations within a mixed stock fishery are being most heavily exploited and thus establish what level of exploitation – if any – can be deemed sustainable.

Genetic information will also help to assess the effectiveness of existing hatchery operations and refine the use of stocking. And knowledge of the geographical location of nursery habitats will allow expensive habitat restoration projects to be targeted at the precise areas where they should give the greatest benefit.

Admittedly, this work will not provide fisheries managers with all the information they need overnight, but it will be an important step in developing an understanding of how salmon populations are distributed and how they interact with a rapidly changing environment.

It will allow managers to reexamine the tools that have been used in the past and sharpen them for more effective future use.

Rivers and Fisheries Trusts of Scotland (RAFTS)

RIVERS & FISHERIES TRUSTS OF SCOTLAND
Safeguarding Scotland's Rivers & Lochs

CALLUM SINCLAIR - *RAFTS Director*

2008 was a year of significant change and development for RAFTS. The organisation has expanded, several of its employees have changed positions, and a numerous exciting projects have been started, as detailed below.

Image: Andrew Graham-Stewart

FISHERY MANAGEMENT PLANS

Supported by the first instalment of a 3-year grant from Holyrood, members have been developing All Species Fisheries Management Plans, which cover 80 per cent of Scotland. These plans – which were formulated after considerable local consultation and are available on our website – set out the future fishery management actions deemed necessary in each area.

While they already offer a detailed description of what each Trust considers necessary to better protect, manage and develop their fisheries, the challenge now lies in their implementation. Nevertheless, the project has so far been an excellent illustration of how the public and private sectors can work together and play to their respective strengths. Considerable thanks are due to the Government fisheries team for their assistance and financial support.

IMPLEMENTATION

Despite being only the first year of the initiative, approximately 50 projects with a total value of over £600,000 are already underway. Amongst these are schemes delivering habitat restoration work; education and rare species re-introduction initiatives; lamprey and eel surveys; and non-native plant surveys and management.

Other activities include GIS and website development; redd counts; mink surveys; family open days; schemes to deal with diffuse pollution and riparian woodland management; and water temperature monitoring. This amounts to an impressive body of work, which will expand further in future years.

SALMON GENETICS

Greater importance is now being placed by fisheries managers on understanding the genetic composition of different Atlantic salmon populations. By finding out how separate populations – each genetically modified for its own situation and place in the river – exist, effective strategies can be implemented to help ensure their survival.

As a result RAFTS, in partnership with FRS, is to employ Pitlochry-based scientists to analyse genetic material from salmon across Scotland. This will help to unravel the fish's many genetic mysteries, although it is likely to create fresh conundrums too.

Over the next 3 years, an unparalleled level of pan-Scotland sample gathering, analysis and co-operation should greatly enhance our understanding of our many distinctive Atlantic salmon populations – the genetic map of Scottish salmon is on its way.

Currently this work is supported by Government grants supplemented by contributions from Boards and Trusts. We and the Boards have already confirmed almost £250,000 – an impressive figure – worth of work from the initial grant of £57,000 and further contributions are expected as the programme gathers momentum.

BIO-SECURITY PLANNING

We have also secured funding for a 3-year bio-security planning project – an initiative which will help prevent both the introduction of non-native species to our waters and the further spread of those already here. An on-line reporting system for new records, staff training and publicity and awareness activities will also be undertaken. The project, which is viewed as a pilot for action across the UK, is currently supported by SNH, The Esmee Fairbairn Foundation and the Scottish Government.

RAFTS have also signed a Memorandum of Agreement with SNH to assess the spread of American signal crayfish. Due for completion this spring, it will test crayfish detection methods developed as part of the project.

FRESHWATER PEARL MUSSELS

Our members have also been assessing fish populations in locations designated as crucial for the freshwater pearl mussel. Scotland is a stronghold for these molluscs but populations remain under threat. The mussel relies on certain densities of salmonids – as its juveniles need to live in their gills – so those areas with no fish are unlikely to sustain any mussels.

Our members have been conducting surveys at secret locations across Scotland and have provided SNH with the findings. By knowing the extent of fish populations SNH can then formulate better management strategies to maintain the pearl mussel. In some instances an effective measure may be to try to improve fish populations close to mussel beds.

For further information visit www.rafts.org.uk

Sea Trout: A Crisis of Our Making?

TONY ANDREWS - *Director Atlantic Salmon Trust*

There are some species of wild animal that, above all others, can capture the imagination. Among these are the woodcock, the roe deer and the sea trout.

Wild, itinerant, indigenous - and often at their most active at dusk - these species can evoke a feeling of mystery and anticipation which connects us spiritually with both our hunter-gatherer ancestors and to our past. It is for these reasons that we must take direct responsibility for their future.

The sea trout is the ancestor of the native brown trout, *Salmo trutta*, and it is the fish that led to the colonisation of our rivers as the ice retreated ten thousand years ago. The mysterious and polymorphic migrant continues to appear suddenly and magically in the summer months but, sadly, its numbers have been diminishing for over 20 years.

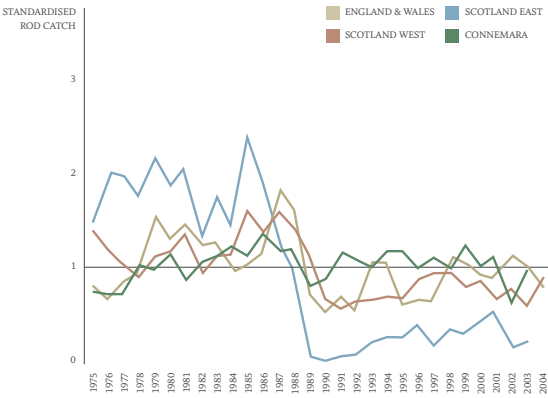
There is a prevailing view amongst managers and biologists that sea trout stocks are in trouble in most river systems in the UK and Ireland. In some areas specific problems - such as the catastrophic impact of aquaculture-generated sea lice on sea trout populations – have been identified. However, in general, we lack an understanding of what needs to be done to restore stocks to pre-1980 levels.

For, despite research, our knowledge of the lives of sea trout – especially while at sea - is still limited. This reinforces concerns that public awareness of the plight of these fish is poor, despite the status of *Salmo trutta* as a Biodiversity Action Plan (BAP) species.

Dr Nigel Milner, one of our most distinguished sea trout specialists and a member of the AST's scientific panel, describes the trout as "the most important, iconic and useful fish species in the British Isles". He goes on to say, "the elevation of trout, by which I mean *Salmo trutta*, the brown and/or sea trout, to the top rank of the fishy celebrity list has been rapid and impressive…The rise of interest in the trout and investment in applied research has happened because the species and the state of its fisheries raise specific questions and problems. Moreover it turns out that the trout, perhaps more than any other UK fish species, offers potential for exploring wider environmental questions."

One of the most impressive aspects of the small group of biologists who lead research in the life of sea trout is that, without exception, they have a personal enthusiasm for the species, which comes through in the way they talk and write about trout. Combined with the fish's BAP status, this gives their research a head start in convincing governments that action needs to be taken on behalf of sea trout. And this is where organisations such as ASFB, RAFTS, WTT and the AST can help promote the interests of the fish in socio-economic as well as biological terms.

As the following graph illustrates, rod catches in the UK and Ireland declined in the period 1975 to 2004, while net catches on Scotland's east coast remained constant until 2008, when there was a marked decline too.



STANDARDISED SEA TROUT ROD CATCHES

The overall decline has, however, spawned a number of valuable regional research projects. The biggest of these is the Celtic Sea Trout Project, led by Nigel Milner and colleagues at Bangor University. But there are numerous others - including the Moray Firth project; the Sea Trout Group, which focuses on the impact of salmon aquaculture on the west coast of Scotland; Dr Ronald Campbell's East Coast initiative; and the Wild Trout Trust's South Coast project.

Nigel Milner refers to the subtleties and varieties of *Salmo trutta*, as "both a problem and an opportunity," for a UK-wide sea trout research project. "As we learn more about its causes", he continues, "so we will understand better the biological significance of spatial and temporal variation in trout life history. But we need to be able to decode the signals of observed variation in life history traits (e.g. growth, maturation timing, survival) and set them against improved understanding of sea trout ecology and distribution at sea.

"The subtext here is climate change and the influence that has on both freshwater and marine habitats. All this requires information and knowledge and that comes through good quality stock assessment, monitoring and research, which brings us to the recent history of research initiatives on sea trout."

As I said earlier, it also points the way for the next phase of coordinated planning of research throughout the UK and Ireland.

Further information:
The AST will hold a one-day sea trout workshop on the 16th of April at the Royal Society of Edinburgh. This will scope existing research, discuss the possible coordination of the various research groups, and plan a follow-up event to the Cardiff Sea Trout Symposium of 2004. For further details visit www.atlanticsalmontrust.org

Land of the Giants – Rivers and Salmon

HARALD OYEN - *Director FishNorway / Norway Salmon Fishing*

If fishing in Norway this year. Remember - BAN THE BUG!

Image: Harald Oyen

Norway's stand on salmon conservation took a positive turn during 2008. However, there is still plenty of work to do to catch up with Scotland's leading position on these issues.

A staggering 2,000 to 2,100 salmon in the 20-30lb range were landed during the first three weeks of the 2008 season (starts 1 June) on the major rivers of Central Norway – Namsen, Verdal, Stjørdal, Gaula, Orkla and Surna. This positive trend continued until rising temperatures and lower water levels foreshortened a bumper year.

All the major rivers experienced a good season - particularly in the increased numbers of big salmon. The Alta alone had several dozen 40-pounders, and the Orkla, Gaula and Namsen boasted good samples of 40 to 50-pounders too. Large salmon were also reported from numerous lesser-known rivers all over Norway, which reflected a positive combination of changes both in Government policy and anglers' own attitudes to conservation.

The Directorate for Nature Management (DN) introduced a delayed start-up of all bag-net-fishing stations – which amounted to six weeks in coastal areas and up to three weeks in the fjords. In Trondheim fjord this was combined with the existing voluntary net buy-out. The delayed start enabled thousands of salmon to reach their rivers without undue hindrance, allowing the free run of the early big three-sea-winter fish for which Norway is particularly known.

The river owners' organisations also introduced day and seasonal quotas to support the netting delays and, for the first season ever, a considerable catch and release regime took effect on a number of rivers. While it has been a controversial issue in Norway for a long time, a remarkable change was seen in attitude and behaviour last year.

As a result of these conservation measures, a good number of the major salmon rivers are hitting their new spawning targets - figures that have been set on 180 of the 400 'active' Norwegian rivers in order to achieve sustainable stocks. A number of these rivers now have catch and release results of 15-25 per cent – a success given that such figures were unheard of only a year ago.

LOOKING AHEAD

After an extremely poor run in 2007, the quality of grilse runs has raised serious concerns. As a result the DN will continue its bag-netting restrictions during the next few years to encourage the free run of early season fish. At the same time the river owners' organisations will continue their efforts to reduce the kill-all attitude among anglers, particularly Norwegian locals. Day and seasonal quotas will be maintained to encourage more catch and release, although it is still seen as positive if one or two fresh salmon are taken home for the table each week.

The emphasis is now very much on conservation and reaching spawning targets. A shining example is the Gaula, where spawning stocks have soared since the Trondheim fjord bag-net buyout started in 2005 and bag-netting delays were introduced in 2008. In the autumn of 2004, 250 redds were counted over a 20-mile stretch from the Støren village downriver to the Melhus village. In 2005, after the first bag-net buyout season, 500 redds were counted on the same stretch. And in the autumn of 2008 this figure had topped 1,000.

To sustain good angling opportunities for both locals and international visitors a few things are of vital importance:

- A cessation of coastal and fjord bag-netting by negotiating a remuneration system for existing bag-netting rights (bag-netting is a coastal or fjord farmer's right in the same way that a riparian owner has the right to fish the river).
- The continuation of strict rules regarding angling quotas and catch and release.
- The elimination of the threat of excess sea lice emanating from the fish-farming industry, which kill smolts in large numbers on their migration to the sea.

The situation for Atlantic salmon in Norway is encouraging. This is largely thanks to a welcome shift towards collaboration and cooperation in order to ensure conservation. The prospects for 2009 are good – the main salmon fishing areas have plenty of snow and cold weather (good water supply); scientists predict less three-sea-winter salmon but good runs of medium-sized fish; the delayed bag-net-fishing will continue; the day and season quotas regime will be maintained and the increased emphasis on catch and release will carry on.

Image: Harald Oyen

Get Down to the River

ANDREW RETTIE - *Strutt & Parker*

I am reliably informed that the idea for this publication came to the chairman of the Association of Salmon Fishery Boards whilst trying, unsuccessfully, to cast on the River Ponoi, which proves that there is much benefit to be gained from a day on a riverbank, even if there are no fish.

Strutt & Parker are involved, to a great extent, with many rivers in Scotland in management, buying, selling and letting and we have a high level of expertise not to mention enthusiasm in this area.

There have been very few prime beats on the 'big four' rivers in Scotland; the Spey, Tay, Tweed and Dee offered for sale in recent years. This could be because owners of prime beats on these rivers have seen increases in optimism for salmon in Scotland and catch returns, and so recognise that the value of their asset (and their fun) is increasing. If there has been next to no activity in premier league salmon fishings there has been a little more in the first division. Strutt & Parker handled the sale of the Carnoustie fishings on the River Deveron in Aberdeenshire. This single bank beat averaging 151 salmon and grilse attracted plenty of interest and sold to a local buyer.

We have also sold shares on the River Lochy near Fort William in Inverness-shire This is an example of a very well managed river system which employs a highly competent manager who is also a keen salmon angler. The implementation of a hatchery, habitat improvement and careful management of angling policy has brought about a dramatic improvement to this system which was virtually moribund just a decade or so ago. The catch returns are testament to the success of the management. 32 salmon and grilse were caught on the entire system in 1998 and 1,163 in 2007.

We currently have two fishings for sale at opposite ends of Scotland. On the Tweed we have two shares in the Tillmouth Fishings, a highly productive beat with a five year average of 635 salmon and 50 sea trout. 1,050 salmon were caught in 2007. There is single bank fishing over more than four miles with 22 named pools. The shares are available for in the region of £350,000 per share. Much further north we have two rods on the Brahan Fishings on the River Conon in Ross-shire which consists of two timeshare rods for a mid-June week with fishing over six and a half miles of this charming East Highland river as it flows through the Brahan Estate. The river is dammed further upstream to provide hydro-electric power with the benefit for anglers that there can be good levels of water even during dry periods of weather. With a ten year average of 22 salmon and grilse for the week between 12 rods, these two rods are available at offers in the region of £15,000 per rod.

For the vast majority of us who do not own a beat of salmon fishings, one of the joys of our sport is being flexible about where we fish. I have thoroughly enjoyed visits to fish for salmon on the Kola Peninsula in Russia and two sea trout trips to Argentina on the Rio Grande and Rio Gallegos. Closer to home, my firm lets fishings by the week on great variety of Scottish rivers through Mark Merison of our Sporting Department (01635 576905).

STRUTT &PARKER

Image: Andrew Graham-Stewart

River Spey

ROGER KNIGHT - *River Spey Director*

With almost all beats having declared their catches for last season, the Spey catch for 2008 amounted to 11,556 salmon and grilse. This is marginally higher than the 11,378 for 2006, and some 27 per cent above the 1992-2001 average of 9,100.

SALMON

Unlike last year, which got off to a slow start, 2008 saw 924 spring salmon caught before the end of April – 77 per cent of which were returned. By the end of June just over 4,700 salmon had been accounted for, with excellent catches reported throughout that month. Indeed, the catch up to June was the best the Spey had seen for over 15 years and included substantial numbers of big fish. Catches slowed during July, however, as the grilse didn't arrive until early August, but these were plentiful until the second half of September.

Encouragingly the release rates for salmon have continued to climb, increasing to 74 per cent – up from 71 per cent in the previous two years. The Conservation Policy will remain unchanged for 2009.

SEA TROUT

This heartening news has not been reflected in the sea trout catches, however, which have fallen again to a worrying total of 1,629 for 2008 – lower even than 2007's 2,200 and significantly below the ten year average of 4,590 (see Figure 2). This continued decline has prompted the Spey Research Committee to reconsider and revise its sea trout conservation policy, which was subsequently approved by the Board and published in the last monthly briefing.

The only encouraging news regarding sea trout has been the increase in the release rate, up to 62 per cent in 2008 from 53 per cent last year. We would like to thank all of the anglers, ghillies and proprietors for their sympathetic response to the decline in sea trout numbers and their support for the revised policy.

River Tay

DR DAVID SUMMERS - *Fisheries Director, Tay District Fisheries Board*

Last spring was a considerable improvement on 2007. While the 2SW spring run was not particularly strong it was augmented by the best run of 3SW salmon for more than a decade. More than 70 salmon over 20 lb, and six over 30 lb, were caught during the spring.

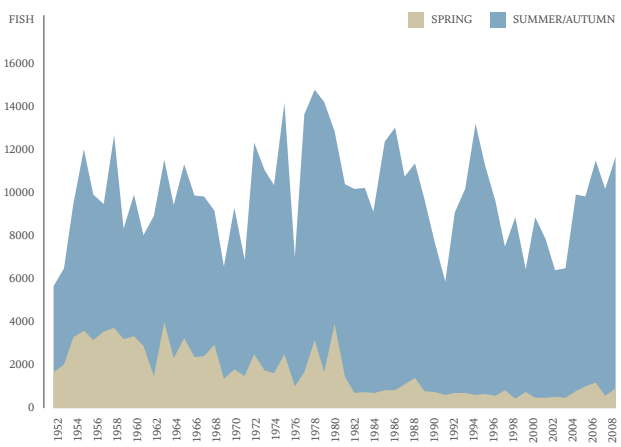
Fish counters showed a better than average summer grilse run on the Ericht but only a moderate run on the Tummel. However, this run was once again late, arriving in late July and August as opposed to early July. This trend has persisted since 2005 and has effectively shortened the most productive part of the season.

Autumn catches, which are largely made up of fish which spawn in the main stem of the Tay and are a different stock from the summer run, were slightly below average overall, but the run seemed to increase towards the end of the season with sea liced fish being in evidence to the end. This, and the fact that greater than average numbers of relatively fresh still-to-spawn fish were caught when the 2009 season opened in January suggests that the 2008 run arrived later than normal and may have led to reduced catches in the season. Like the spring, more large fish were evident in the autumn than for some years.

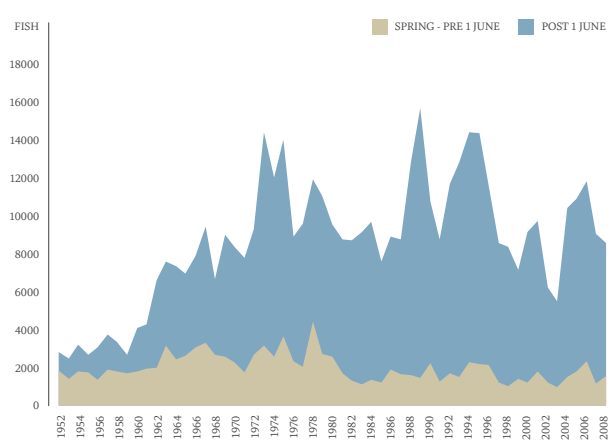
The total catch for the season was approximately 8,800, slightly below the recent average. But as a result of a strengthening of the conservation code backed by a major effort by the Board, catch and release rates rose markedly from 2007 – from 51 per cent up to 75 per cent in the spring and (provisionally) from 39 per cent to 63 per cent overall.

The unexpected resurgence of 3SW spring salmon in 2008, was the major highlight of the season. Was this related to the particularly poor conditioned grilse we saw in 2006? Certainly by starving fish during their first sea winter in a fish farm the age of maturation increases. If so, maybe 2009 could yield even more surprises.

But, whatever happens in terms of salmon runs, catches on the Tay are heavily influenced by the weather conditions, which have not been on our side for several years. A dry summer might not suit most rivers, but it would greatly help here!



RIVER SPEY ROD CATCH STATISTICS 1952-2008
SOURCE - SPEY DFSB



RIVER TAY ROD CATCH STATISTICS 1952-2008
SOURCE - TAY DFSB

River Dee

MARK BILSBY - *River Dee Director*

The total rod catch for 2008 was 6,485 fish of which over 98 per cent were returned. The success of the voluntary catch and release programme, along with the improvements to the river habitat, are undoubtedly helping to improve runs.

SPRING

In February 243 fish were caught, including one of 53 inches, estimated at over 45 lb. Arctic conditions continued throughout March but a total of 393 were still caught.

The weather slowly improved through April and the rod catch correspondingly rose, and included many fish over 20 lb. May cemented the Dee's reputation as a fine spring fishery, with over 800 fish of up to 32 lb. By the end of May a total of 2,107 salmon had been caught.

SUMMER

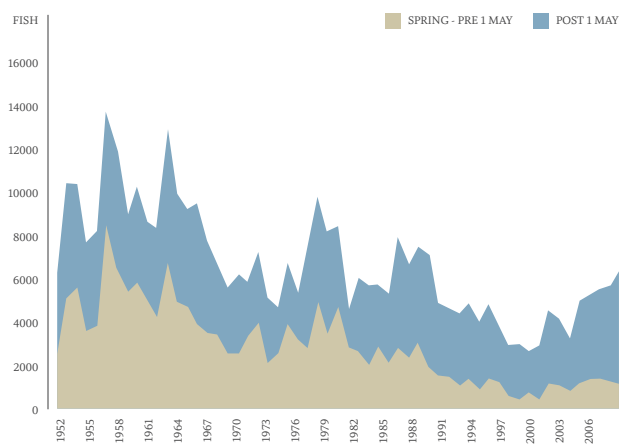
Water levels dropped but success was had for those who fished at dawn and dusk. August brought cooler air temperatures, regular rainfall, and catches also in excess of the five-year average.

The summer saw the successful completion of the LIFE project, whereby nine obstructions to fish migration were removed or eased; 38km of buffer strips were installed to reduce agricultural run-off; 25,000m², of parr habitat was created; 21km of riparian woodland was re-structured; and 17 schools learnt about the river's wildlife and fishing.

AUTUMN

September was the main month for the autumn run, although the river below Aboyne Bridge was also open for the first two weeks in October – a trial extension which will run until the end of the 2010 and be supported by an objective research programme. The catch for these weeks comprised a mixture of 500 fresh and coloured fish.

For more information visit www.riverdee.org.uk



RIVER DEE ROD CATCH STATISTICS 1952-2008
SOURCE - DEE DSFB

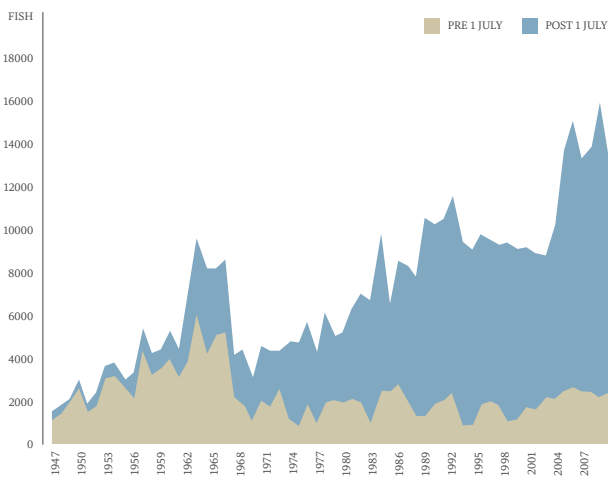
River Tweed

NICK YONGE - *Director Tweed Commissioners and Tweed Foundation*

In 2008 15,189 salmon were caught of which 1,451 were caught by nets and 13,738 by rod and line. The year was distinguished by the very high water flows which meant that lower beats lost as much as a full month's worth of fishing days; consequently catches on many lower river beats were much less than the five-year average despite a consensus that there were plenty of fish running.

Conversely, middle and upper beats, as well as the Whiteadder and Teviot, had their best year for ten years. All sections of the river (with the exception of the lower river from Kelso downstream, and the nets) had a year better than their five-year average. The Whiteadder in particular had a very good year, with a catch of 796 being almost twice the five-year average, and some of the upper beats having particularly prolific catches.

There was a continued trend of fewer large salmon (over 25 lb) which has been noted in previous years. Catches by coastal and river nets were significantly down; for the third year running the coastal net catch was reduced from 423 in 2007 to 366 in 2008 and in-river nets had a lower catch of 1,085 in 2008, against 4,382 in 2007 and a five-year average of 2,595. The RTC continued its Spring Salmon Conservation Measures up to 30th June, with anglers being invited to return their first, and thereafter every alternate, fish caught. This allowed the majority of fish to be returned which helped to meet the spawning escapement required for the spring stock. The 2008 spring catch was good at 2,361 fish which was the second highest spring catch in 23 years. Of that catch, 1,589 fish (67 per cent) were returned. 4,383 sea trout were also caught in the 2008 season (3,926 in 2007), of which 2,450 were by net and 1,933 by rod and line. Both rod and net sea trout catch were up slightly on 2007s catches, and both were higher than the five-year averages.



TWEED, ROD CATCH 1947 - 2008
SOURCE - TWEED COMMISSIONERS

River Findhorn

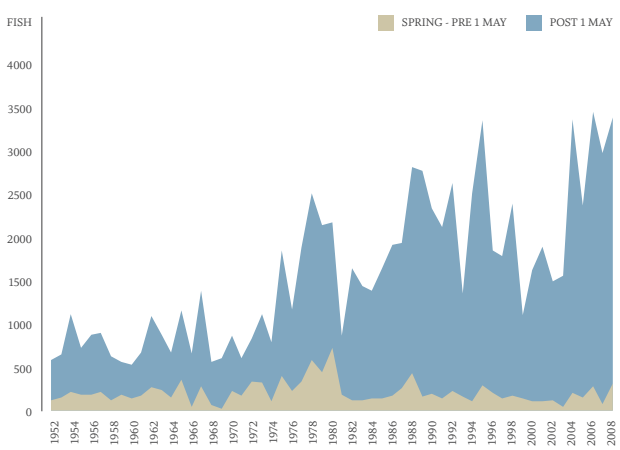
EWEN BRODIE - *former chairman Findhorn Fishery Board*

In 2008 the Findhorn enjoyed a reasonable spring run, with 310 salmon caught by the end of April. But after the very weak run in 2007, which yielded only 78 fish by the same date, the Board continues to maintain a highly precautionary approach to managing this fragile stock. Prior to the mid-1980s the netting interests were accounting for between 1000 and 4000 springers a year - an indicator of the strength of the strength of the stock at that time.

Summer salmon and grilse have shown a better performance over recent years but, considering the nets were often accounting for over 10,000 fish between May and the end of September, it is less surprising that summer/autumn runs have been good to excellent in recent years. 2981 were caught in this period in 2007 and 3391 in 2008.

The 2008 grilse run appeared a month or so later than usual (another recent trend). And there has been concern about their size and leaner condition, although 2008's fish were better than the previous year's. In 2009 we would hope to see continuing stability in the spring run and better conditioned grilse. Against this background of comparative uncertainty the river's 2008 release rate of 69 per cent is encouraging and in 2009 proprietors have agreed to a voluntary catch and release code of 65-75 per cent.

2007 – 78 spring (pre-May 1st) and 2903 (rest of year). Total = 2981
2008 – 310 spring and 3081 rest of year. Total = 3391, the 4th best year on record.



FINDHORN ROD CATCH STATISTICS 1952-2008
SOURCE - FINDHORN DSFB

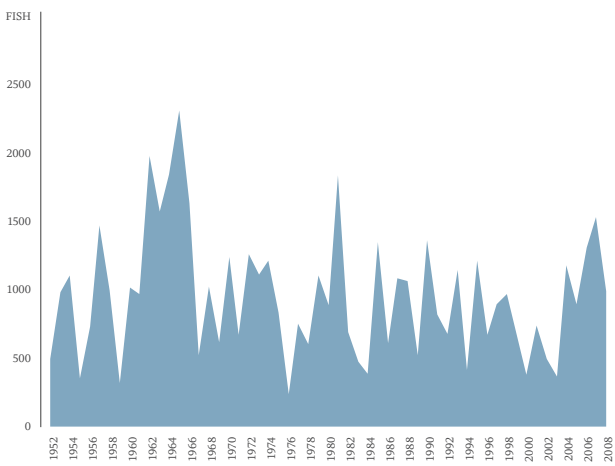
River Thurso

EDDIE McCARTHY - *River Manager*

Although the Thurso starts its season on 11th January it is very lightly fished until mid-March. The high water of the past couple of seasons has allowed fish to run the fish-pass at Loch More and reach safety, but spring numbers still give rise for concern.

The estuary net was removed at the end of 2005 and there has been a marked increase in the number of fish caught by the rods. We have had returns of 1,305 – 1,530 since then and, even with the extreme drought of 2008, 989 fish were recorded.

Like most systems we are finding that the grilse are approximately four weeks late in arriving but, while we have had some very small thin grilse, we don't seem to have as many as some rivers. Although we do not operate a compulsory catch and release policy, anglers returned 79 per cent of spring fish and 58 per cent of grilse and summer salmon.



RIVER THURSO ROD CATCH STATISTICS 1952-2008
SOURCE - THURSO RIVER

Grimersta

SIMON SCOTT - *River Manager*

The final return for 2008 was 333 salmon and grilse at an average weight of 5¼ lb. 77 per cent of the catch was voluntarily returned.

As in 2007 very few grilse had reached the system by late June. There was an improvement during July and August, however, and the end of the season was encouraging, with sea-liced fish still being taken into October. There was also a slight improvement in the weight and condition of the grilse – although some were very small, most were in good condition. We hope that their late arrival is a short-term trend as it significantly reduces what is already a brief season.

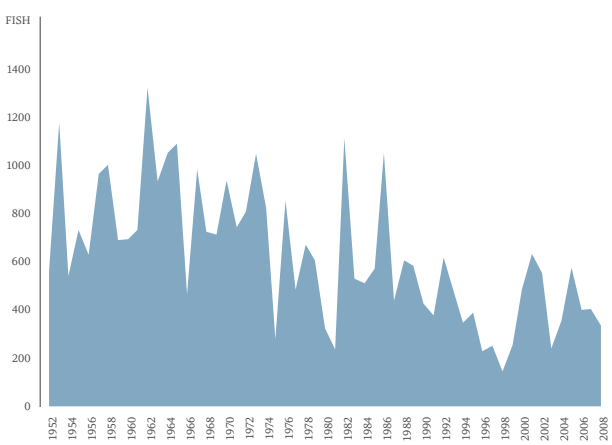
While the 2008 total was below average there are some signs of improvements. The 5-year average has now recovered to over 400 fish a season from the low point of the late 1990's, but this is some way short of the 700-fish long-term average.

Historically there was a significant run of spring fish in March and April but, while this run has long since disappeared, it would be wonderful if it could be restored. Sea trout have declined across much of the area, almost certainly as a result of aquaculture.

PROSPECTS AND ISSUES

There are serious concerns over the impact of aquaculture in Loch Roag. However, from January 2009, all sites in the loch will have a simultaneous fallow period which should reduce sea lice burdens.

SNH's Hebridean Mink Project aims to completely eradicate the animals from the islands and should have a major impact of the survival of juvenile salmonids. We are also working with SNH to improve habitat and to bring about an effective monitoring programme, which ought to include the installation of a fish counter on the lower river.



RIVER GRIMERSTA ROD CATCH STATISTICS 1952-2008

River Annan

NICK CHISHOLM - *River Annan Fishery Board Environmental Manager*

The estimated salmon catch is either the highest or second highest on record, with five beats recording over 300 fish for the year. The five-year average has now climbed to around 1700 from a low point of 500 back in 1997. Although the accuracy of reporting has probably improved over the last ten years, overall salmon abundance has also undoubtedly increased significantly.

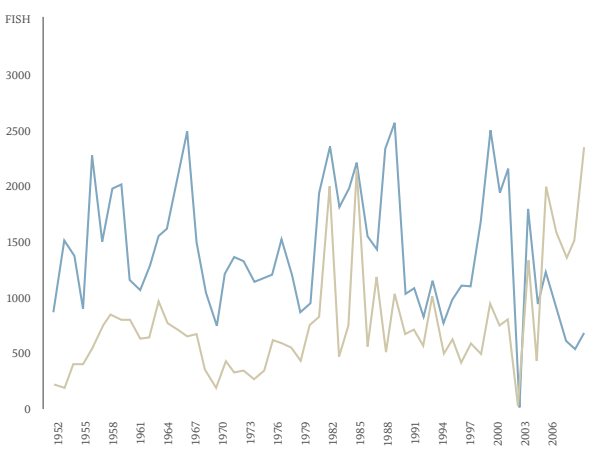
What is less encouraging is the spring fish. While, from the 50s through to the mid-70s the spring catch contributed from 20-45 per cent of the total, it is now barely one percent. It is probable that the late summer, autumn and winter fish have now taken over the springers' historical breeding areas.

DSFB actions, such as the removal of significant obstructions and restoration of considerable areas of poor habitat (around 50,000m of bankside fencing has been erected in ten years with another 30,000m scheduled for 2009/10), have clearly helped. Whilst the Annan does have a hatchery it is not thought that this has a significant bearing on returns. In most of the nursery areas we are seeing increasing numbers of fry and parr, which indicates that the post-fishery numbers of salmon are also growing. As a result we should expect the current high returns to be sustainable if sea survival rates do not drop.

SEA TROUT

There has been a significant drop in the numbers of sea trout being caught, due in part to a reduced effort by anglers. More sea trout were seen in 2008, but conditions were such that few were caught. And it is clear that in some parts of the catchment salmon have replaced sea trout as the most abundant spawning fish. In one area the average density was 18 trout parr/100m², and 3 salmon parr/100m², ten years ago, but has now flipped to trout at 5 and salmon at 21 respectively.

Note: 2001 catch low due to foot and mouth disease preventing fishing.



RIVER ANNAN ROD CATCH 1952-2008
(SALMON - GOLD / SEA-TROUT - BLUE)

Fisheries Management in Scotland – Facts and Figures

Number of District Salmon Fishery Boards	42
Total capital value of Scottish salmon fisheries	£425,000,000
Total rateable value of salmon fisheries in Scotland – 2007	£4,206,411
Funding raised by DSFBs in 2007	£3,144,492 Rods: £3,081,648 (98%) Nets:£62,844 (2%)
Further project funding raised by DSFBs Total	£609,790 £3,754,282
Number of salmon caught (2007)	Rod catch: 91,053 Released: 55,472 (61%) Net catch: 19,897
Number of sea trout caught (2007)	Rod catch: 21,541 Released: 11,158 (52%) net catch: 5,574
Total netting effort (2007)	Fixed engine: 236 trap months Net & Coble: 54 crew months
Number of DSFB Staff	Full time: 57 Part time: 88
Legislation governing Boards	Salmon & Freshwater Fisheries (Consolidation) (Scotland) Act 2003
Number of river bailiffs trained under the ASFB/IFM SVQ accredited qualification	150
Annual value of salmon fisheries to Scottish economy (Scottish Government statement 2008)	£120m
Number of days salmon fishing per annum	545,000
Number of people employed in Scottish freshwater angling (FTE)	2,800
Number of Scottish charitable fisheries research trusts	22
Number of people employed by Fisheries Trusts & Foundations	Salaried – 57 (Full time equivalents) Volunteers – 60 (FTE)
Percentage Board areas covered by Trusts in 2009 (exc. Northern Isles)	81 per cent
RAFTS funds raised for Fisheries Trusts	2007 £442,000 2008 £667,000 2009 £594,000 (est)
ASFB office bearers	PRESIDENT: The Lord Nickson KBE VICE-PRESIDENTS: Sir Robert Clerk Bt Jean Matterson CHAIRMAN: Hugh Campbell Adamson VICE CHAIRMAN: Sir Edward Mountain EXECUTIVE COMMITTEE: Ian Scott (Dee DSFB) Jim Allingham (N&W DSFB) Alistair Wallace (Don DSFB) David Summers (Tay DSFB) Roger Brook (Argyll DSFB – Chair RAFTS) Keith Waters (Fishmongers' Company)
ASFB & shared staff	MANAGING DIRECTOR: Andrew Wallace DIRECTOR: Brian Davidson ADMINISTRATOR: Fiona Campbell PR: Andrew Graham Stewart (Part-time) LEGAL ADVISERS: Fish Legal (formerly ACA) Gillespie Macandrew LLP
RAFTS staff	DIRECTOR: Callum Sinclair INVASIVES & BIO-SECURITY PROJECT: Chris Horrill (from autumn 08) FUND-RAISING / PROJECT DEVELOPMENT: Luke Comins (part time)
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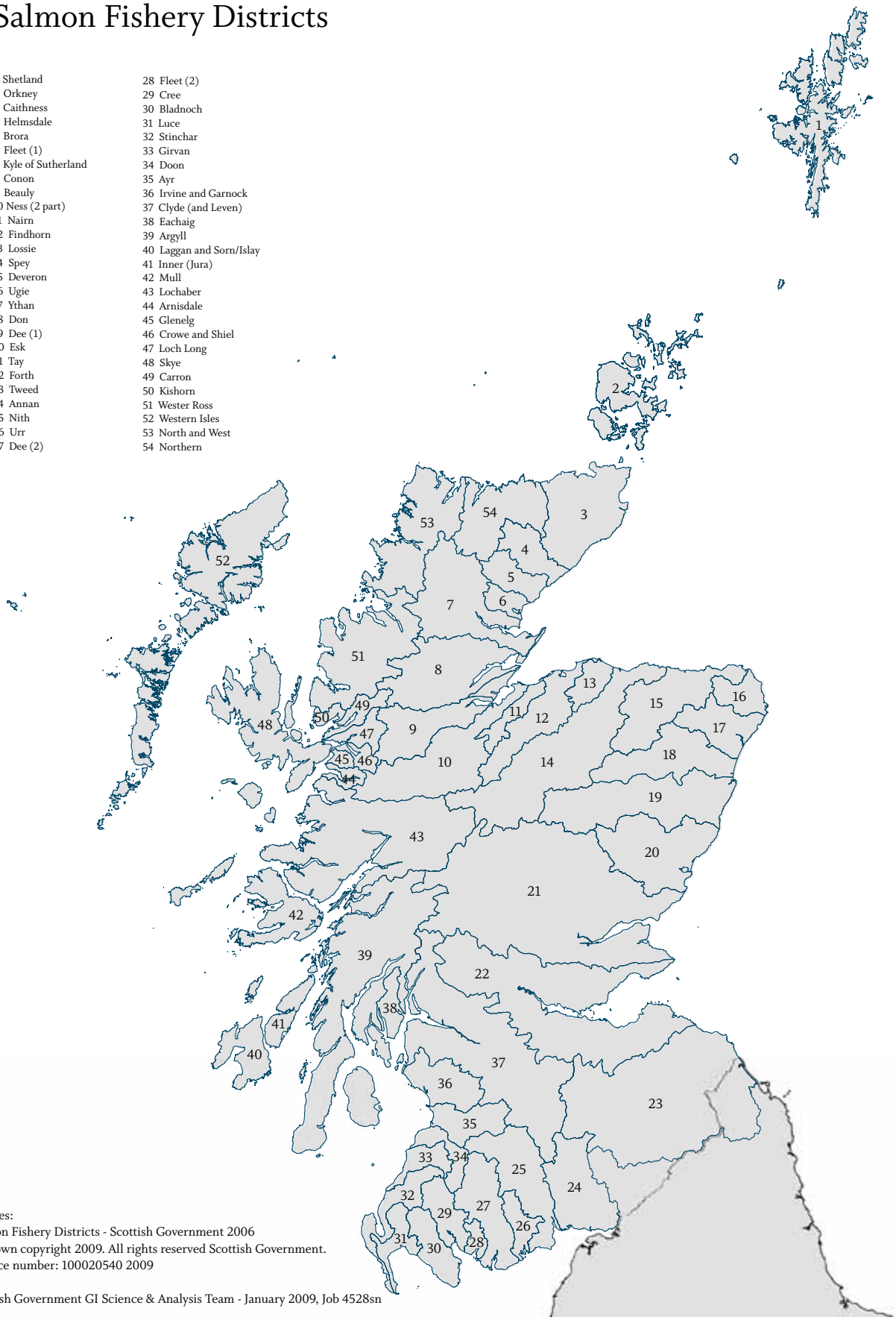
Salmon Fishery Districts

1 Shetland
2 Orkney
3 Caithness
4 Helmsdale
5 Brora
6 Fleet (1)
7 Kyle of Sutherland
8 Conon
9 Beauly
10 Ness (2 part)
11 Nairn
12 Findhorn
13 Lossie
14 Spey
15 Deveron
16 Ugie
17 Ythan
18 Don
19 Dee (1)
20 Esk
21 Tay
22 Forth
23 Tweed
24 Annan
25 Nith
26 Urr
27 Dee (2)
28 Fleet (2)
29 Cree
30 Bladnoch
31 Luce
32 Stinchar
33 Girvan
34 Doon
35 Ayr
36 Irvine and Garnock
37 Clyde (and Leven)
38 Eachaig
39 Argyll
40 Laggan and Sorn/Islay
41 Inner (Jura)
42 Mull
43 Lochaber
44 Arnisdale
45 Glenelg
46 Crowe and Shiel
47 Loch Long
48 Skye
49 Carron
50 Kishorn
51 Wester Ross
52 Western Isles
53 North and West
54 Northern



Sources:
Salmon Fishery Districts - Scottish Government 2006
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Scottish Government GI Science & Analysis Team - January 2009, Job 4528sn

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